Testbed Roundup

GOES-R Proving Ground: Results from the 2013 Demonstrations and Future Plans

Steve Goodman, James Gurka, Timothy Schmit, Mark DeMaria, Anthony Mostek, Brian Motta, Michael Folmer, Amanda Terborg, Chad Gravelle, Kathryn Mozer, Wayne Feltz

Abstract

NOAA's GOES-R series geostationary environmental satellite constellation provides a great leap forward in observing capabilities, and at the same time confronts a significant challenge to ensure that the users are ready to exploit the vast improvements in spatial, spectral and temporal resolutions. In order to ensure user readiness, forecasters and other users must have access to prototype advanced products well before launch, and have the opportunity to provide feedback to product developers to ensure that the end products truly meets their needs. The GOES-R Proving Ground (PG) engages the National Weather Service (NWS) forecast and warning communities, and other U.S. and international users in pre-operational product and service capability demonstrations of select products with GOES-R attributes. In the satellite PG, developers and forecasters test and apply algorithms for new GOES-R satellite data and products using proxy data sets from numerous satellites (TERRA, AQUA, GOES, MSG, Suomi-NPP, and TRMM), lightning networks and computer simulated products. User education, outreach and training are critical components of user readiness. The PG is both a recipient and a source of education and training. Training material is developed to prepare the participants of satellite PG activities at the Hazardous Weather Testbed's Spring Experiment, National Hurricane Center, and Aviation Weather Testbed. Plans for the future include partnering with JPSS and EUMETSAT to transition to a "satellite proving ground" and going beyond the standard GOES-R product sets to introduce more blended and fused products to simulate how forecasters will integrate the GOES-R information with other forecast tools. The satellite PG is expanding beyond the NWS operational users to include participation from the international and broadcaster communities. This presentation will show examples of the proxy and simulated GOES-R products and provide feedback on their operational value from satellite PG participants.